The Titusville Communicator

Official Publication of the Titusville Amateur Radio Club

WWW.K4KSC.COM

"Dedicated to the Promotion and Preservation of Amateur Radio in Central Florida, Across the United States, Around the Globe, and Throughout the Universe"

TARC MAY SITREP

By Paul Fee, N6PDF

TARC President

The month of May has been very busy and productive time for us. There has been a flurry of activities lately which has produced some very impressive results that will benefit TARC for years to come.

First and foremost is the completed conversion of the Denman Road Repeater (146.775, 100 Hz) to 100% solar power. It's up and running without having to worry about FPL power bills, blackouts or having the power shut off.

We have also been coordinating closely with the members of the old NBARC club to help coordinate their inclusion into TARC. We helped them sell some of their equipment to other clubs in the area, and are busy working to get their repeater switched over to our club and under our repeater trustee. Soon we will have another site up and operational in Titusville.

There has also been lots of communication between us and the newly formed club called Space Coast Amateur Radio Society ~ SCARS. I have met with several of their leadership team and we look forward to ongoing cooperation and projects in the future. They are committed, as we are, to using Amateur Radio positively and cooperatively for the good of all. That's an important and honorable goal and one that we want to encourage and grow in the future. I was able to sit down with their club President, Alan-KM4ND and have a lengthy discussion over breakfast about the need for cooperation, joint projects, and sharing resources within the amateur radio community. I'm very encouraged and excited about the possibilities for future activities together.

Here is more information about their new club:

https://www.meetup.com/melbourne-makerspace-florida-usa/events/jbvbltygckbwb/

73 Paul

Volume I, Issue 5

May 2024

What's Happening:

- TARC May Projects
- Field Day 2024
- Upcoming Events and Projects

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Tell us about the new Repeater Solar System!

By Paul Fee, N6PDF

If you're interested in hearing more about the newly installed Solar Power system at the Denman Road Repeater, here are the juicy details!

The reason for it's installation is because of the challenges we faced with keeping the 146.775 repeater reliably powered up. It's very remotely located, with multiple challenges for commercial FPL power. This solves all those issues.

The TARC board of directors came to the conclusion that "off the grid" solar power was the logical direction, and selected a commercial solar kit by Sungold Power, which is comprised of:

1. Six PhotoVoltaic (PV) panels which provide direct current (DC) power which varies with available sunlight. We were seeing 180-215 VDC during testing.
2. All-in-one solar charger/inverter rated at 5000VA/5000W providing over 40A of AC power to the repeater site.
3. 5.12 KWH Lithium 51.2V 100AH LiFePO4 (Lithium Iron Phosphate) Battery that comes with Battery Management System can manage and monitor cells information including voltage, current and temperature, protects it from overcharge, deep discharge, overloading, overheating and short circuit.

Very special thanks to those TARC members and other supporters who helped design, provided the funds for, braved the almost triple digit temperatures and performed the installation of this important system on Friday, May 24th.

Roy-N4RKM
Stephanie-K4MVO
Dave-KY4F
Steve-NA4SA
Dave-AD6Q
Tom-KN4GLO
Sally-KN4HPX
Paul-N6PDF
Peter-NI2I
AA4HP Radio Sport Club, Inc

Be sure and take a moment to appreciate those who take the time, effort and energy to keep our repeaters healthy and operational. It's easy to take them for granted, but they each take time and money to keep them on the air.

It is important that these sites are available to the Amateur Radio community at large, as well as our members. Hurricane season is right around the corner and these are valuable assets in a crisis.

Photos of the Solar Installation

This is the concrete structure that houses the repeater.

The solar panels are atop the repeater building, adjacent to the 120’ antenna tower

Revised: 05/27/2024

TARC ARRL Field Day 2024
Date: June 22 – 23, 2024
Time: 1800 UTC Saturday and running through 2059 UTC Sunday
(2:00 PM Saturday through 1:59 PM Sunday)
Location: Fox Lake Park in the #2 pavilion

Event Coordinator: Mike Elledge (KC4JEM, TARC Vice President) mike.kc4jem@gmail.com

BEFORE Field Day Tasks:

1. The generator on the tower trailer **needs to be installed**. We have a generator (donated by Tom KN4GLO), just need a working party to install it. In talking to Tom he thinks two people and about two hours to lift into position, bolt and hook it up. Check the generator (gas, oil, run check). The new generator is gas not propane. Need FRESH gas for Field Day and a gas can for refilling generator.
2. Check we have the special HEX/TORIX wrench to install the rotor and a ladder to reach it!
3. Check tire tires and pressure on both trailers to make sure they are road Ready. Check both trailers lights.
4. Contact Press and Newspaper to inform them of our Field DAY. We get extra points for this (my understanding is **IF** they show up).

Volunteers by task:

1. _____ 1. _____
2. _____ 3. _____
4. _____

OBJECT*: Field Day is to work as many stations as possible on the 160, 80, 40, 20, 15 and 10 Meter HF bands, as well as all bands 50 MHz and above, and in doing so to learn to operate in abnormal situations in less than optimal conditions. A premium is placed on developing skills to meet the challenges of emergency preparedness as well as to acquaint the general public with the capabilities of Amateur Radio (https://field-day.arrl.org/).*

Friday June 21

No activities planned. We are only paid up for Fox Lake for Saturday and Sunday so no early work can be done at the park.

Saturday June 22

TARC Trailer and Mobile Tower to be picked up at 8:30 A.M. at Tom's house (KN4GLO). Will need help from people with a truck. Hopefully two trucks so it can be accomplished in one trip from Tom's house where they are stored.

Truck Volunteer #1 _____
Truck Volunteer #2 _____

Overnight security is needed. Tom (KN4GLO) and Sally (KN4HPX) have indicated they will be staying overnight at Fox Lake. Others are welcome to join in and participate.

Basic Site Communications Plan

Talk In help	TARC Repeater 146.970 tone 107.2	Volunteers needed to monitor
Site communications	146.550 Simplex	Coordination/Questions/help
Personal Cell Phones	Backup 1 to 1 communications	

Setup at Fox Lake is to start at 9:00 AM Saturday

Plan: First Antenna system is to use the HEX-beam antenna (loaned to the club by Marty (KJ4LQX)) with its rotor mounted at the top of the of the mobile tower trailer and connected to operator position #1 in the TARC trailer.

We need volunteers to assemble the HEX beam and get it mounted. Based on past events 3-4 people are needed for about 2 hours. Assembly should start about 9 A.M. EDT. Direction to be provided by Marty.

Second Antenna System is to use the clubs 80-6 meter fan dipole. This will also be mounted on mobile tower trailer (orientation to be determined at the site). Based on past events 1-2 people are needed for about 1 hour. This antenna would be connected to operator position #3 in the TARC trailer.

Other Antenna Systems (Club members/visitors) To be setup at other locations around the pavilion as required. Need an approximate head count of how many club members are bringing their radios and type of antenna they plan to use. Please email Mike KC4JEM at mike.kc4jem@gmail.com with details.

Road Signs: To be placed out on the 405 (south street) Saturday morning to guide in visitors and members that have never been to the TARC Field day. We also should have signs placed to direct people when they get to the entrance to the park. We have normally left the signs out for the whole 24 hour period. Signs should be picked up on Sunday around noon.

Food/refreshments In the past we have done food and drinks. Normally a lunch for Saturday noon and a Pot Luck dinner for Saturday night. Everyone usually brings a dish to share for the Saturday dinner. The dinner will be at 5 P.m. so everyone has an idea of when to have their food at Fox Lake.

Please email Mike KC4JEM at mike.kc4jem@gmail.com with your group size and what you plan to bring (don't want everyone to bring the same dish…lol).

How are we paying for the Noon lunch on Saturday? **Club discussion at 5/28 meeting.**

Area cleanup through the day.

Need a schedule of operators and when they want to work the TARC Trailer radios thru Saturday Midnight (local time). Please email Mike KC4JEM at mike.kc4jem@gmail.com

Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____

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Volunteer: _____ From: _____ To:_____

Volunteer: _____ From: _____ To:_____

Do We have any CW operators for this Field Day?

Look for slow speed CW in the center of the Novice and Technician segments of the CW bands on 80, 40, 15 and 10 meters; and 50 kHz from the lower band edge of 160 and 20 meters. Slow speed CW operators should take care to avoid the digital operation "watering holes" where RTTY, FT4/FT8 and other digital modes are commonly found. (*https://www.arrl.org/files/file/Field-Day/2024/1_62-%20FD%20FAQ.pdf*)

Sunday June 23

Sunday morning we should have something light for breakfast (donuts, fruit, etc.) We have also done a lunch on Sunday. How are we paying for the breakfast and the Noon lunch? **Club discussion at 5/28 meeting.**

Need a schedule sheet of operators and when they want to work the radios thru Sunday Morning (local time) thru Field Day closing at 1:59 P.M. Please email Mike KC4JEM at mike.kc4jem@gmail.com

Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____
Volunteer: _____ From: _____ To:_____

Lots of help to tear down at close of Field Day (2 P.M.)
Area cleanup.

Signs should be picked up around noon (don't think they would be needed anymore).

Volunteers to get the TARC trailer and Mobile Tower trailer back to Tom's
Truck Volunteer #1 _____
Truck Volunteer #2 _____

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Titusville Amateur Radio Club
April 23, 2024 Meeting Minutes

Meeting Called to Order: 7:00 PM, by President Paul Fee, N6PDF; followed by the Pledge of Allegiance to the Flag, led by VP Mike Elledge, KC4JEM.

President's Welcome: Paul, N6PDF: Upcoming FL QSO Party at Tom and Sally's place. Noted that we took first place last year in our category. New/used equipment has been donated to TARC.

Membership Introductions: Members in attendance introduced themselves:

Quorum Present? Yes (BoD members Dave KY4F, and Barry, N4NMF, not in attendance, but we did have a Quorum.)

Last Meeting Minutes: Approved as Published: Yes

Treasurer's Report: Approved: Yes

Old Business:

1. Repeater Status:

   a. 146.91: up and running at N4RKM's QTH

   b. 146.97: up and running at Titusville Towers

   c. 146.775: still needs power

   d. J. , KB4POA, reminded us that he has Duplexers and Cans for a repeater; Paul, N6PDF, indicated tht he had a 70cm Repeater; and Roy, N4RKM, mentioned that he had a 70cm antenna.

2. Power for the 146.775: Tom, KN4GLO, reminded us that he has done the research for the cost of a complete system solar system, about $4000.00, for the 146.775 Repeater located at the Denman Property in Mims.

   a. Stephanie, K4MVO, made a motion to approve the expenditure, offering $2,000.00, financial assistance from the AA4HP Radio Sport Club, Inc.;

   b. and the motion was seconded by Chuck, K4TZO.

   c. Discussion: Roy, N4RKM, suggested we table the motion on purchasing the system until all funding could be determined by the Finance Committee.

   d. VOTE: Table the Motion/Discussion: Approved.

New Business:

1. Upcoming Florida QSO Party: 2 day event, No overnight. Food will be provided. Donations welcomed.
2. Tom, KN4GLO, reminded us that ARRL Field Day is soon approaching, and do we have plans.
    a. President, N6PDF, asked for volunteers,
3. Chuck is looking for information on a piece of Kenwood equipment that had been on a shuttle or at the ISS. Looking for people who may have knowledge of what was put into orbit.
4. Membership dues. Someone questioned the details about membership dues, and President, N6PDF, read from the our By-Laws that dues are due in January, and those who join later in the year will have their dues pro-rated.

Guest Speaker/Presentation: VP Mike, KC4JEM gave a fantastic presentation on 3D printing.
50/50 tickets: Winner: Steve, NA4SA Amount: $36.50
Meeting Adjourned: Time: 8:45 PM; Followed by a Social Hour.

Respectfully submitted by TARC Secretary
Stephanie Merritt, K4MVO